Influence of small interfering RNA on the growth of the leukemia cell line K562 and expression of protein

ZHANG Xue-tao\textsuperscript{1}, HAO Xin-bao\textsuperscript{2}

(1. Division of Materials and Chemical Engineering, Hainan University, Haikou 570228, China; 2. Affiliated Hospital of Hainan Medical College, Haikou 570102, China)

[Foundation Project]: Funded by the Platform for Science and Technology Innovation of Graduate Students in Hainan University, a Project Launched during the Third Stage of 211 Project University Construction (Innovation Lab)

[Author]: ZHANG Xue-tao (1987-), Taiyuan Shanxi, M. M., Tel: 13637540157, Email: zxt1662282@163.com.

[Correspondence to]: HAO Xin-bao, Professor, Tel: 13876184900, Email: haoxb@tom.com

Received: 2012-01-13 Revised: 2012-03-10 JHMC, 2012;18(6):727-730

View from specialist: It is creative, and of certain scientific and educational value.

[ABSTRACT] Objective: To detect the influence of small interfering RNA on the chronic myelogenous leukemia cell line K562. Methods: Transfected the cells with liposome, and tested the cell activation with MTT assay, then drew the growth curve. Measured the expression level of p210 protein and tested the cell apoptosis with Annexin-V-FITC. Results: Compared with the negative control, two siRNAs could reduce the cell activation, induce cell apoptosis and reduce the expression of p210. Conclusion: Small interfering RNA could inhibit cell activation of K562, reduce the expression of fusion protein and induce the apoptosis; which might be a valid therapy for chronic myelogenous leukemia.

[KEY WORDS] Small interfering RNA; K562; BCR/ABL